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(54) EXERCISING DEVICE

(70) Charbonneau, Joseph H.A.,
Canada

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1. Dates Appearing in Patent Headings

Dates

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Dates

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The apparatus according to the invention is an exercising device having foot pedals and hand levers which are operated simultaneously.

It is a principal object of this invention to provide an exercising device which will simultaneously exercise leg muscles, arm muscles, shoulder and back muscles.

A further object of the invention is to provide an exercising device which is manually operable, and in which a pair of rotatable foot pedals are linked to a pair of vertical arm levers, with adjustable tension means associated therewith, whereby the degree of difficulty of exercise provided by the exercising device may be selectively increased or decreased.

It is a still further object of the invention to provide an exercising device which is readily adjustable to accommodate individual users of various statures.

A further object of the invention is to provide an exercising device which is relatively simple in construction and inexpensive in manufacture.

It is a still further object of the invention to provide an exercising device comprising: a base portion; a seat mounted near one end of said base; a pair of pedals rotatably mounted near the end of said base remote from said seat; said pedals being connected to a crankshaft therebetween; a pair of reciprocable hand levers pivotally mounted on said base between said pedals and said seat, each of said hand levers being connected at an intermediate point thereon, to said crankshaft.

Reference will now be made to the drawings in which:

Figure 1 is a side elevation of an exercising device according to the invention;

Figure 2 is a front elevation of an exercising device according to the invention;

Figure 3 is a top plan view, partly in section, taken along lines III-III of Figure 1;

Figure 4 is a sectional view taken along line IV-IV of Figure 1; and

Figure 5 is a sectional view taken along line V-V of Figure 1.

Detailed reference will now be made to the drawings wherein like reference numerals will identify like parts.

Referring firstly to Figures 1 and 3, a supporting base consists of a



pair of parallel vertical members 10a and 10b affixed to and supported by a pair of legs 12 and 14. Legs 12 and 14 may be pivoted in the direction of arrows 12a and 14a (see Figure 1), for storage purposes. A seat 16 is supported by and mounted on column 18, which in turn is supported by and mounted on a base member 20, secured to frame members 10a and 10b near one end thereof. Suitable brace members 22 are also provided. Seat 16 is telescopically adjustable at 24, as is well known in the art.

10 A pair of hand levers 26, 28 are pivotally mounted in side-by-side arrangement, at their lower ends, at 30 (see Figures 1 and 5). As seen most clearly in Figure 2 hand levers 26 and 28 terminate in handle portions 26a and 28a, respectively. Hand levers 26 and 28 are telescopically extensible, and adjustable, as illustrated at 26b and 28b. Tensioning means 26c and 28c are associated with lever arms 26 and 28 respectively, affixed at one end to parallel vertical members 10a and 10b respectively, and at their other end to arms 26 and 28 respectively. Tensioning means 26c and 28c may be of the spring or hydraulic type, with suitable means for tension adjustment.

20 A pair of pedals 32, 34, are rotatably mounted on frame members 10a, 10b, respectively, near the end thereof remote from seat pedestal base 20. Pedal arms 32a and 34a being affixed to the ends 36a and 36b of a crankshaft 36, (see Figure 4). Suitable bearings 38a and 38b are mounted on frame members 10a and 10b, respectively.

Arms 26 and 28 are connected to crankshaft 36 by connecting arms 40a and 40b, respectively. As is seen most clearly in Figure 1, arms 40a and 40b may be selectively connected to arms 26 and 28, as at 40c, d or e, near the bottom of telescopic lever 26.

The other end of arms 40a and 40b are affixed to crankshaft 36 at 42a and 42b, respectively, (see Figure 4).

30 In operation, the exercising device is mounted, the person exercising being seated on seat 16, with a foot on each of pedals 32 and 34, in the manner of a bicycle, and handle portions 26a and 28a of lever arm 26 and 28 are grasped. Rotation of pedals 32, 34, will cause lever arms 26 and 28 to reciprocate. Alternatively, reciprocation of handles 26a and 28a, will cause pedals 32 and 34 to rotate. Thus, a person exercising may resist the reciprocation of handles 26a and 28a while exerting a rotation force on pedals 32, 34, or, alternatively,

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the user may resist rotation of pedals 32 and 34 while exerting a reciprocating action on handles 26a, 28a. Thus, maximum exercise may be achieved, either for the legs, or for the arms and upper torso, selectively. Adjustment of tensioning means 26c, 28c, will permit a greater or lesser degree of exercise also to be achieved.

The foregoing is by way of example only and the invention should be limited only by the scope of the appended claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An exercising device comprising:

a base portion;

a seat mounted on a stationery vertical pedestal near one end of said base;

a pair of pedals rotatably mounted near the end of said base remote from said seat;

said pedals having a crankshaft directly affixed therebetween adapted to rotate therewith;

a pair of reciprocable hand levers pivotally mounted on said base between said pedals and said seat, each of said hand levers being connected at an intermediate point thereon, to said crankshaft by a linking arm, each of said arms being pivotally connected at one end to one of said levers and at its other end to said crankshaft.

2. An exercising device according to claim 1, spring tensioning means being connected between said frame and said hand levers for selective adjustment whereby said hand levers will reciprocate with a greater or lesser degree of difficulty.

3. An exercising device according to claim 1, said hand levers and said seat being selectively telescopically extensible.

4. An exercising device according to claim 1, said linking arms being selectively pivotally connectable to said hand levers at a plurality of pre-determined points along the length thereof.

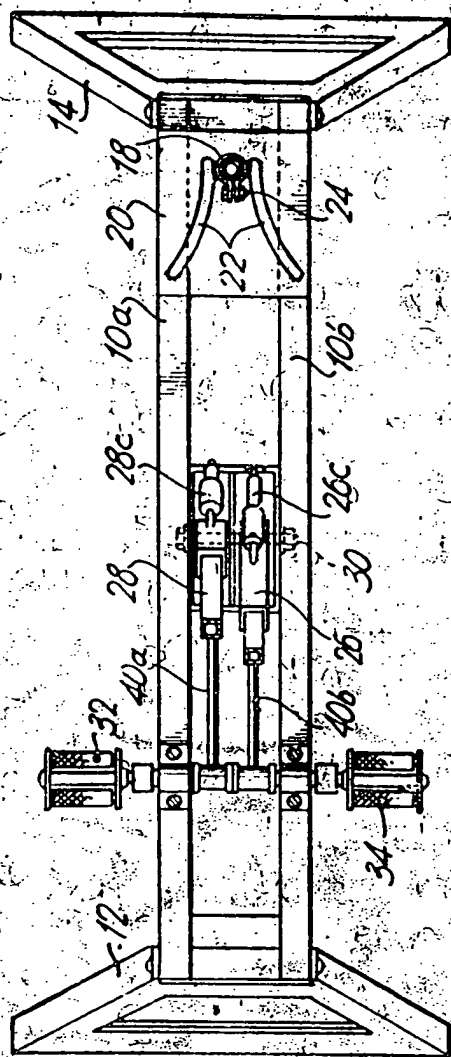


Fig. 3

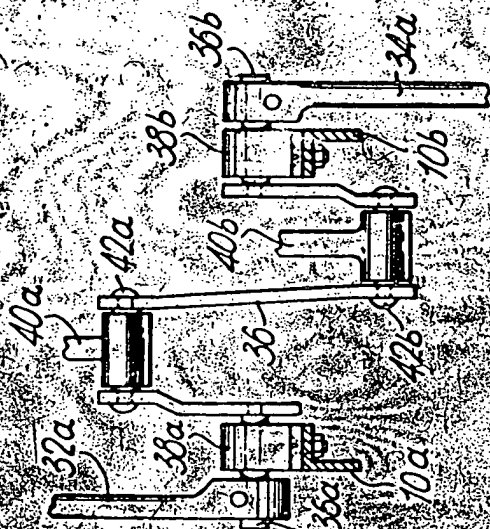
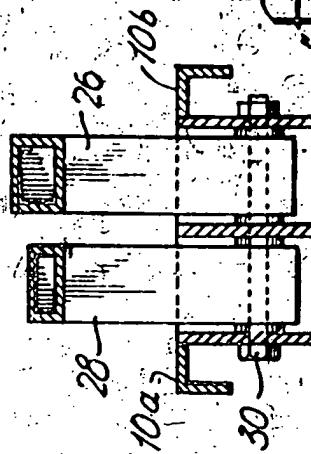


Fig. 4



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